COAXIAL CABLES

aerospace industry Video systems Telecommunications
Radio/television Various types of measuring equipment
Medical devices computer systems Military equipment and weapon systems
RoHS COMPLIANT

In order to meet the 2002/95/CEE European Directive, AXON’ CABLE has replaced their high strength silver plated copper alloy conductors (SPTF) with a silver plated copper alloy conductor (SCA) with equivalent performance but heavy metal free. The AXON’ SCA conductors do not contain Cadmium. They are RoHS compliant.

SPECIAL VERSIONS

PICO-COAX®

FLEXIBLE MINIATURE COAXIAL CABLES
- Flexible miniature coaxial cables offering a good compromise between a small diameter (e.g. < 0.2 mm) and a capacitance of 50 to 100 pF/m.
- Laying up of more than 500 PICO-COAX® into MULTIPICO-COAX® cables.
- Manufacture of harnesses : MULTIPICO-COAX® cables can be terminated by different types of connectors.
- Application : e.g. transducer probe cables (medical imaging,...).

For more detailed information, please ask for our “PICO-COAX®” brochure.

AXOWAVE

FLEXIBLE LOW LOSS MICRO ASSEMBLIES
- The use of CELLOFLON® dielectrics makes it possible to manufacture very low loss microwave assemblies (e.g. AXOWAVE 8N : ø 8.0 mm, α ≤ 0.80 dB at 18 GHz) which can be used at high frequencies (up to 50 GHz).
- These assemblies are terminated with SMA, N, TNC type or metric connectors depending on the type of cable.

AXOWAVE datasheets show the detailed characteristics of the whole standard product range.
Any special request can be studied.
<table>
<thead>
<tr>
<th>CABLE REFERENCE</th>
<th>MIL - DTL-17</th>
<th>NFC 93-550</th>
<th>CONDUCTOR</th>
<th>DIELECTRIC</th>
<th>SCREEN</th>
<th>OUTER SHEATH</th>
<th>Zc</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUM50</td>
<td>SCA</td>
<td>1 x 0.16</td>
<td>0.16</td>
<td>PTFE</td>
<td>0.52</td>
<td>-</td>
<td>FEP 1.05</td>
</tr>
<tr>
<td>SUM52</td>
<td>SCA</td>
<td>1 x 0.16</td>
<td>0.16</td>
<td>GRAPHITE</td>
<td>PTFE</td>
<td>0.52</td>
<td>FEP 1.10</td>
</tr>
<tr>
<td>SM75</td>
<td>SCA</td>
<td>1 x 0.16</td>
<td>0.16</td>
<td>PTFE</td>
<td>0.52</td>
<td>SPC</td>
<td>FEP 1.70</td>
</tr>
<tr>
<td>SM95</td>
<td>SCA</td>
<td>1 x 0.16</td>
<td>0.16</td>
<td>PTFE</td>
<td>0.86</td>
<td>-</td>
<td>FEP 1.50</td>
</tr>
<tr>
<td>SM50 SCA</td>
<td>7 x 0.063</td>
<td>0.19</td>
<td>FEP</td>
<td>0.5</td>
<td>SPC</td>
<td>-</td>
<td>FEP 1.05</td>
</tr>
<tr>
<td>SM50 SPCI</td>
<td>7 x 0.04</td>
<td>0.12</td>
<td>FEP</td>
<td>0.5</td>
<td>SPC</td>
<td>SPC FEP</td>
<td>FEP 1.30</td>
</tr>
<tr>
<td>M17/93-RG378</td>
<td>M17/93-RG378</td>
<td>KC21</td>
<td>SCWS</td>
<td>7 x 0.10</td>
<td>0.30</td>
<td>PTFE 0.85</td>
<td>FEP 1.90</td>
</tr>
<tr>
<td>M17/169-00001</td>
<td>M17/169-00001</td>
<td>SCWS</td>
<td>7 x 0.10</td>
<td>0.30</td>
<td>PTFE 0.85</td>
<td>SPC WHITE</td>
<td>FEP 1.90</td>
</tr>
<tr>
<td>RG66/U</td>
<td>SCWH</td>
<td>7 x 0.10</td>
<td>0.30</td>
<td>PTFE</td>
<td>0.85</td>
<td>SPC</td>
<td>TAPED PTFE2 2.03</td>
</tr>
<tr>
<td>RG68/A/U</td>
<td>SCWS</td>
<td>7 x 0.10</td>
<td>0.30</td>
<td>PTFE</td>
<td>0.85</td>
<td>-</td>
<td>TAPED PTFE2 2.03</td>
</tr>
<tr>
<td>RGL196</td>
<td>SCWS</td>
<td>7 x 0.10</td>
<td>0.30</td>
<td>GRAPHITE</td>
<td>PTFE</td>
<td>0.85</td>
<td>SPC TAPED PTFE2 2.03</td>
</tr>
<tr>
<td>M17/132-RG404</td>
<td>M17/132-RG404</td>
<td>SCWS</td>
<td>7 x 0.10</td>
<td>0.30</td>
<td>PTFE 0.85</td>
<td>SPC</td>
<td>FEP 1.95</td>
</tr>
<tr>
<td>M17/93-00001</td>
<td>M17/93-00001</td>
<td>SCWS</td>
<td>7 x 0.10</td>
<td>0.30</td>
<td>PTFE 0.85</td>
<td>SPC</td>
<td>PFA 1.90</td>
</tr>
<tr>
<td>RG184/00055</td>
<td>KX20/D</td>
<td>SCWS</td>
<td>7 x 0.10</td>
<td>0.30</td>
<td>PTFE 0.85</td>
<td>SPC FEP</td>
<td>FEP 1.30</td>
</tr>
<tr>
<td>M17/131-RG403</td>
<td>M17/131-RG403</td>
<td>SCWS</td>
<td>7 x 0.10</td>
<td>0.30</td>
<td>PTFE 0.85</td>
<td>SPC FEP</td>
<td>FEP 1.35</td>
</tr>
<tr>
<td>M17/136-00001</td>
<td>M17/136-00001</td>
<td>SCWS</td>
<td>7 x 0.10</td>
<td>0.30</td>
<td>PTFE 0.85</td>
<td>SPC</td>
<td>PFA 2.66</td>
</tr>
<tr>
<td>RG67/A/U</td>
<td>SCWS</td>
<td>7 x 0.10</td>
<td>0.30</td>
<td>PTFE</td>
<td>1.60</td>
<td>SPC</td>
<td>TAPED PTFE2 2.79</td>
</tr>
<tr>
<td>RGL187</td>
<td>SCWS</td>
<td>7 x 0.10</td>
<td>0.30</td>
<td>GRAPHITE</td>
<td>PTFE</td>
<td>1.60</td>
<td>TAPED PTFE2 2.79</td>
</tr>
<tr>
<td>RG79</td>
<td>SCWS</td>
<td>7 x 0.10</td>
<td>0.30</td>
<td>PTFE</td>
<td>1.60</td>
<td>SPC</td>
<td>TAPED PTFE2 2.79</td>
</tr>
<tr>
<td>RG198</td>
<td>SCWS</td>
<td>7 x 0.10</td>
<td>0.30</td>
<td>PTFE</td>
<td>2.60</td>
<td>SPC</td>
<td>TAPED PTFE2 3.93</td>
</tr>
<tr>
<td>RG199</td>
<td>SCWS</td>
<td>7 x 0.10</td>
<td>0.30</td>
<td>GRAPHITE</td>
<td>PTFE</td>
<td>2.60</td>
<td>TAPED PTFE2 3.93</td>
</tr>
<tr>
<td>RG201</td>
<td>SCWS</td>
<td>7 x 0.10</td>
<td>0.30</td>
<td>GRAPHITE</td>
<td>PTFE</td>
<td>2.60</td>
<td>TAPED PTFE2 3.93</td>
</tr>
<tr>
<td>RG302</td>
<td>SCWS</td>
<td>7 x 0.10</td>
<td>0.30</td>
<td>PTFE</td>
<td>2.60</td>
<td>SPC</td>
<td>TAPED PTFE2 3.93</td>
</tr>
<tr>
<td>RG303</td>
<td>SCWS</td>
<td>7 x 0.10</td>
<td>0.30</td>
<td>PTFE</td>
<td>2.60</td>
<td>SPC</td>
<td>TAPED PTFE2 3.93</td>
</tr>
<tr>
<td>RG304</td>
<td>SCWS</td>
<td>7 x 0.10</td>
<td>0.30</td>
<td>PTFE</td>
<td>2.60</td>
<td>SPC</td>
<td>TAPED PTFE2 3.93</td>
</tr>
<tr>
<td>RG400</td>
<td>SCWS</td>
<td>7 x 0.10</td>
<td>0.30</td>
<td>PTFE</td>
<td>2.95</td>
<td>SPC</td>
<td>TAPED PTFE2 4.20</td>
</tr>
<tr>
<td>P530000</td>
<td>SCWS</td>
<td>7 x 0.10</td>
<td>0.30</td>
<td>GRAPHITE</td>
<td>PTFE</td>
<td>2.95</td>
<td>TAPED PTFE2 4.20</td>
</tr>
</tbody>
</table>

PTFE GRAPH. = GRAPHITE PTFE / PTFE RUB. = TAPED PTFE
TECHNICAL GLOSSARY

CHARACTERISTIC IMPEDANCE
Term representing the relationship between the voltage and current in a cable of supposedly infinite length. There are three main classes of characteristic impedance for coaxial cables: 50 Ω, 75 Ω, and 95 Ω. The formula defining characteristic impedance may be written as follows:

\[ Z_c = \frac{138.2}{\sqrt{\varepsilon}} \cdot \log_{10} \left( \frac{D}{d} \right) \text{ in } \Omega \]

Theoretical formula in the case of a perfect line.

CAPACITANCE
Property of a coaxial cable to store electric charge when a difference in potential energy exists between the two conductors. This will depend on the geometry of the cable and on the nature of the insulation and may be defined as follows:

\[ C = \frac{24.12 \varepsilon}{\log_{10} \left( \frac{D}{d} \right)} \text{ or } \frac{33.26 \sqrt{\varepsilon}}{Z_c} \text{ in pF/m} \]

VELOCITY OF PROPAGATION
This is the speed that the electrical signal travels through in the dielectric.

\[ v_p = \frac{1}{\sqrt{\varepsilon}} \times 100 \text{ as a % of the speed of the light} \]

Ex.: solid polyethylene \( v_p = 66 \% \)
solid PTFE \( v_p = 69 \% \)

As the dielectric constant of an insulation is a direct function of the nature of this insulation, in order to increase the velocity of propagation we must decrease the dielectric constant and bring it as close as possible to the dielectric constant of air (\( \varepsilon = 1 \)).

Ex.: dielectric constant ETFE = 2.6
PTFE = 2.1
CELOFLON® = 1.3 to 2.1

ATTENUATION
Attenuation is the sum of losses in the conductor and in the dielectric which determines the exponential loss occurring to a signal during a transmission in a cable. Attenuation may be expressed as follows:

\[ A = \frac{1.43 R}{Z_c} + 9.15 \cdot \sqrt{\varepsilon} \cdot f \cdot F \]

in dB/100 m at frequency range

where

\[ R = 25.4 \left( \frac{1}{D} \right) \cdot \sqrt{f} \]

COAXIAL CABLES
The use of coaxial cables extends to every application in which a signal must have a minimum distortion and attenuation or where elimination of external interference plays a leading part.

The use of a coaxial cable helps to prevent many of the problems created by bifilary wires: the twin conductor construction of coaxials (central conductor and shield) separated by a dielectric prevents the reception of outside interference, and at the same time, the loss of the electromagnetic wave.

Different types of coaxials are determined by the materials employed (conductors and dielectrics), the outer diameter, the characteristic impedance, the capacitance, the attenuation and the frequency range.

The most widely used coaxial cables are those according to the American norm MIL-DTL-17, the RG (Radio Frequency Government) references and the French norm NF-C 93550, KX references.

THE DESIGN
AXON' coaxial cables can be composed of the following materials:

CONDUCTOR
- Copper clad steel
- Solid PTFE
- SPC
- SCA

DIELECTRIC
- Solid PTFE
- CELLOFLON®

SCREEN
- SPC
- CELLOFLON®

SHEATH
- PTFE
- FEP
- PFA

CELLOFLON®
For small, flexible, high performance coaxial cables AXON' has taken out a patent on CELLOFLON® (porous PTFE). This material presents an 80% porosity, a density of 0.42 and a dielectric constant of 1.18 (solid PTFE: density = 2.2 - dielectric constant = 2.1).

The use of CELLOFLON® helps to manufacture lighter, smaller, more flexible cables with better electrical characteristics. As the dielectric constant will be lower, there will be fewer losses, and the cut-off frequency and the velocity of propagation will be higher.

LEGENDS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTFE</td>
<td>Polytetrafluoroethylene</td>
</tr>
<tr>
<td>ETFE</td>
<td>Ethylene tetrafluoroethylene</td>
</tr>
<tr>
<td>FEP</td>
<td>Fluorinated ethylene propylene</td>
</tr>
<tr>
<td>PFA</td>
<td>Perfluoroalkoxy</td>
</tr>
<tr>
<td>CELLOFLON®</td>
<td>Porous PTFE</td>
</tr>
<tr>
<td>SPC</td>
<td>Porous PTFE</td>
</tr>
<tr>
<td>SCA</td>
<td>Silver plated copper</td>
</tr>
<tr>
<td>SCWS</td>
<td>Silver plated copper clad soft steel</td>
</tr>
<tr>
<td>SPTF</td>
<td>Non magnetic silver plated copper alloy</td>
</tr>
<tr>
<td>SCWH</td>
<td>Silver plated copper clad hard steel</td>
</tr>
<tr>
<td>SCI</td>
<td>Silver plated copper alloy</td>
</tr>
<tr>
<td>SPCA</td>
<td>Silver plated copper clad aluminium</td>
</tr>
</tbody>
</table>
CONSTRUCTION

- Conductor:
  - silver plated copper clad soft steel,
  - silver plated copper clad hard steel,
  - silver plated copper.
- Dielectric: extruded PTFE.
- Velocity of propagation: 69%.
- Screen:
  - silver plated copper.
- Sheath:
  - light brown or white extruded FEP.

CHARACTERISTICS

Excellent resistance of the dielectric or the outer jacket of the cable to the soldering iron.

---

### FEP SHEATH

<table>
<thead>
<tr>
<th>CABLE REFERENCE</th>
<th>CONDUCTOR MATERIAL</th>
<th>CONSTRUCTION</th>
<th>NOM. Ø (mm)</th>
<th>DIELECTRIC MATERIAL</th>
<th>NOM. Ø (mm)</th>
<th>SCREEN MATERIAL</th>
<th>NOM. Ø (mm)</th>
<th>OUTER SHEATH/MAXX</th>
<th>MAX. WEIGHT (g/m)</th>
<th>MAX. 2 (dB)</th>
<th>MAX. ZAPANCE (pF/m)</th>
<th>ATTEN. AT 400 MHz (dB/m)</th>
<th>CONNECTOR SERIES USED</th>
</tr>
</thead>
<tbody>
<tr>
<td>RG 196 A/U SCWS 7 x 0.10 0.30</td>
<td>EXTRUDED PTFE 1.60 SPC TAPED PTFE</td>
<td>2.70 16.20 75 72.5</td>
<td>0.68</td>
<td>BMA-BC-BC-HH-SMA-SMB-SMC-SMB-TNC-TPS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RG 196 U SCWH 7 x 0.10 0.30</td>
<td>EXTRUDED PTFE 1.52 SPC TAPED PTFE</td>
<td>2.70 16.20 50 105 0.68</td>
<td>BMA-BC-BC-HH-SMA-SMB-SMC-SMB-TNC-TPS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RG 195 A/U SCWS 7 x 0.10 0.30</td>
<td>EXTRUDED PTFE 2.60 SPC TAPED PTFE</td>
<td>3.93 29.73 50 85 0.55</td>
<td>BMA-BC-BC-HH-SMA-SMB-SMC-SMB-TNC-TPS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RG 195 U SCWH 7 x 0.10 0.30</td>
<td>EXTRUDED PTFE 0.65 SPC TAPED PTFE</td>
<td>2.03 9.00 50 105 0.65</td>
<td>BMA-BC-BC-HH-SMA-SMB-SMC-SMB-TNC-TPS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RG 196 A/U SCWS 7 x 0.10 0.30</td>
<td>EXTRUDED PTFE 0.65 SPC TAPED PTFE</td>
<td>2.03 9.00 50 105 0.65</td>
<td>BMA-BC-BC-HH-SMA-SMB-SMC-SMB-TNC-TPS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RG 400 ST SPC 10 x 0.20 0.57</td>
<td>EXTRUDED PTFE 2.95 SPC FEP</td>
<td>4.20 40.00 50 96 0.40</td>
<td>BMA-BC-BC-HH-SMA-SMB-SMC-SMB-TNC-TPS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### PTFE SHEATH

<table>
<thead>
<tr>
<th>CABLE REFERENCE</th>
<th>CONDUCTOR MATERIAL</th>
<th>CONSTRUCTION</th>
<th>NOM. Ø (mm)</th>
<th>DIELECTRIC MATERIAL</th>
<th>NOM. Ø (mm)</th>
<th>SCREEN MATERIAL</th>
<th>NOM. Ø (mm)</th>
<th>OUTER SHEATH/MAXX</th>
<th>MAX. WEIGHT (g/m)</th>
<th>MAX. 2 (dB)</th>
<th>MAX. ZAPANCE (pF/m)</th>
<th>ATTEN. AT 400 MHz (dB/m)</th>
<th>CONNECTOR SERIES USED</th>
</tr>
</thead>
<tbody>
<tr>
<td>M17/93-30001 (*)</td>
<td>SCWS 7 x 0.10 0.30</td>
<td>EXTRUDED PTFE 0.65 SPC</td>
<td>1.60 3.30 50 105 1.00</td>
<td>BMA-BC-BC-HH-SMA-SMB-SMC-SMB-TNC-TPS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M17/93-40001 (*)</td>
<td>SCWS 7 x 0.10 0.30</td>
<td>EXTRUDED PTFE 2.60 SPC</td>
<td>3.60 12.85 75 72 0.69</td>
<td>BMA-BC-BC-HH-SMA-SMB-SMC-SMB-TNC-TPS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M17/93-50001 (*)</td>
<td>SCWS 7 x 0.10 0.30</td>
<td>EXTRUDED PTFE 1.52 SPC</td>
<td>2.03 18.15 50 105 0.68</td>
<td>BMA-BC-BC-HH-SMA-SMB-SMC-SMB-TNC-TPS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### PFA SHEATH

<table>
<thead>
<tr>
<th>CABLE REFERENCE</th>
<th>CONDUCTOR MATERIAL</th>
<th>CONSTRUCTION</th>
<th>NOM. Ø (mm)</th>
<th>DIELECTRIC MATERIAL</th>
<th>NOM. Ø (mm)</th>
<th>SCREEN MATERIAL</th>
<th>NOM. Ø (mm)</th>
<th>OUTER SHEATH/MAXX</th>
<th>MAX. WEIGHT (g/m)</th>
<th>MAX. 2 (dB)</th>
<th>MAX. ZAPANCE (pF/m)</th>
<th>ATTEN. AT 400 MHz (dB/m)</th>
<th>CONNECTOR SERIES USED</th>
</tr>
</thead>
<tbody>
<tr>
<td>M17/93-30031 (*)</td>
<td>SCWS 7 x 0.10 0.30</td>
<td>EXTRUDED PFA 1.60 SPC</td>
<td>1.50 3.30 50 105 1.00</td>
<td>BMA-BC-BC-HH-SMA-SMB-SMC-SMB-TNC-TPS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M17/93-40031 (*)</td>
<td>SCWS 7 x 0.10 0.30</td>
<td>EXTRUDED PFA 2.60 SPC</td>
<td>3.60 12.85 75 72 0.69</td>
<td>BMA-BC-BC-HH-SMA-SMB-SMC-SMB-TNC-TPS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M17/93-50031 (*)</td>
<td>SCWS 7 x 0.10 0.30</td>
<td>EXTRUDED PFA 1.52 SPC</td>
<td>2.03 18.15 50 105 0.68</td>
<td>BMA-BC-BC-HH-SMA-SMB-SMC-SMB-TNC-TPS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Equivalent to: (*) MIL-DTL-17, (** NF-C-93550
**TRIAXIALS**

**CONSTRUCTION**
- Conductor: - non magnetic silver plated copper alloy, - silver plated copper, - silver plated copper clad soft steel, - silver plated copper clad hard steel, - silver plated copper.
- Dielectric : extruded PTFE.
- Propagation velocity : 69%.
- Screen: - silver plated copper.
- Outer sheath: - extruded FEP.

**CHARACTERISTICS**
- Better mechanical protection in a flexible cable.
- The “screen-sheath-shield” construction assures a much better electrical shielding than two sheathed screens.

**APPLICATIONS**
- All equipment where outside interference must be minimized.
- Propagation of two different signals, E.g.: Probe leads, Transducer leads.

---

**FEP SHEATH**

**CONSTRUCTION**
- Conductor: - silver plated copper clad soft steel, - silver plated copper clad hard steel, - silver plated copper.
- Dielectric : extruded PTFE.
- Velocity of propagation : 69%.
- Screen: - silver plated copper.
- Sheath: - light brown extruded FEP.

**CHARACTERISTICS**
- Better mechanical protection in a flexible cable.
- The “screen-sheath-shield” construction assures a much better electrical shielding than two sheathed screens.

**APPLICATIONS**
- All equipment where outside interference must be minimized.
- Propagation of two different signals, E.g.: Probe leads, Transducer leads.

---

**CELLOFLON® DIELECTRIC**

**CONSTRUCTION**
- Conductor: - silver plated copper clad soft steel, - silver plated copper clad hard steel, - silver plated copper.
- Dielectric : extruded PTFE.
- Velocity of propagation : 69%.
- Screen: - silver plated copper.
- Sheath: - light brown extruded FEP.

**APPLICATIONS**
- All equipment where outside interference must be minimized.
- Propagation of two different signals, E.g.: Probe leads, Transducer leads.
LOW NOISE VERSIONS

CONSTRUCTION
- Conductor:
  - non magnetic silver plated copper alloy,
  - silver plated copper clad soft steel,
- Dielectric: extruded PTFE / graphite.
- Velocity of propagation: 69%.
- Low noise coating.
- Screen: silver plated copper.
- Sheath: white PTFE tape (except SM L 50: blue PTFE tape), extruded light brown FEP.

APPLICATIONS
- high gain audio amplifiers,
- piezoelectric components,
- accelerometers,
- magnetic recording heads,
- oscilloscope probes.

SUBMINIATURE VERSIONS

CONSTRUCTION
- Conductor:
  - silver plated copper clad soft steel, single strand
  - silver plated copper clad soft steel
- Dielectric:
  - extruded PTFE (or FEP) for static applications
  - FEP for dynamic applications
- Velocity of propagation: 69%
- Screen or outer conductor:
  - silver plated copper
  - silver plated copper clad aluminium
- Outer sheath: light brown FEP

APPLICATIONS
- Medical electronics,
- Audio equipment,
- Satellites,
- Miniaturised electronics.

LIGHTWEIGHT VERSIONS

CONSTRUCTION
- Conductor:
  - silver plated copper clad aluminium
  - silver plated copper
- Dielectric: CELLOFLON®
- Velocity of propagation: 81%
- Screen or outer conductors:
  - silver plated copper
  - silver plated copper clad aluminium
- Outer sheath: extruded FEP

APPLICATIONS
- aircrafts
- helicopters
**AXON’ COAXIAL CABLES**

**ADVANTAGES**
- low dielectric constant,
- low losses,
- weight and space saving,
- high temperature resistance,
- excellent mechanical resistance,
- remarkable chemical inertness,
- good ageing characteristics,
- flexibility.

**APPLICATIONS**
- aerospace industry,
- telecommunications,
- radio / television,
- video systems,
- various types of measuring equipment,
- computer systems,
- medical devices: scanners, imaging equipment,
- military equipment and weapon systems.

**QUALITY CONTROL**
dimensional, characteristic impedance, capacitance and attenuation tests.

**TECHNICAL BACK-UP**
- Terminated coaxial cables: easier installation and significant time saved for the user.
- Harnesses delivered with a Certificate of Test and/or conformity.
- Design of special constructions per customer request.

**CUSTOMER BUYING GUIDE**
The items listed below are absolutely essential for us to be able to provide you with the answer to your requirements:
- operating temperature,
- degree of non flammability,
- impedance,
- capacitance,
- maximum permitted attenuation at a given frequency,
- type of connector used,
- application.

---

**FRANCE**

**AXON’ CABLE S.A.S.**

2 RTE DE CHALONS-EN-CHAMPAGNE

51210 MONTMIRAIL

TEL: +33 3 26 81 70 00

sales@axon-cable.com

---

**BRAZIL**

**AXON’ CABLE IND. E COM. LTDA.**

RIO DE JANEIRO

TEL: +55 21 3596-8002

salesbrazil@axon-cable.com

---

**CANADA**

**AXON’ CABLE CANADIAN OFFICE**

MONTREAL, QUEBEC

TEL: +1 514 898 2044

sales@axon-cable.com

---

**CHINA**

**AXON’ INTERCONNECT LIMITED**

SHUNDE, GUANGDONG

TEL: +86 757 2838 7200

sales@axon-interconnect.com

---

**GERMANY**

**AXON’ KABEL GmbH**

LEONBERG

TEL: +49 7152 97992-0

sales@axon-cable.de

---

**HUNGARY**

**AXON’ KÁBELGYÁRTÓ KFT.**

KECSKEMÉT

TEL: +36 76 508 195

axon@axon-cable.hu

---

**INDIA**

**AXON’ INTERCONNECTORS AND WIRES PVT LTD**

BANGALORE

TEL: +91 806 816 2966

sales@axon-cable.in

---

**JAPAN**

**AXON’ CABLE JAPAN OFFICE**

NAGANO

TEL/FAX: +81 26 217 6728

axon-japan@axon-cable.com

---

**LATVIA**

**AXON’ CABLE SIA**

DAUGAVPILS

TEL: +371 6540 78 91

axon@axoncable.lv

---

**MEXICO**

**AXON’ INTERCONEX, S.A. DE C.V**

MÉXICO

TEL: +52 442 215 2713

axon-mexico@axon-cable.com

---

**SINGAPORE**

**AXON’ CONNECT PTE LTD**

SINGAPORE

TEL: +65 62 50 31 69

sales.singapore@axon-cable.com

---

**SPAIN**

**AXON’ CABLE SPANISH OFFICE**

MADRID

TEL: +34 911 309 123

axon-spain@axon-cable.com

---

**UNITED KINGDOM**

**AXON’ CABLE Ltd**

DUNFERMLINE

TEL: +44 1383 421500

sales@axon-cable.co.uk

---

**USA**

**AXON’ CABLE INC.**

SCHAUMBURG

TEL: +1 847 230 7800

sales@axoncable.com

---

**VISIT OUR WEBSITE**

www.axon-cable.com

---

**FOLLOW US ON THE SOCIAL NETWORKS:**

Axon-Cable

axon-cable

axoncable

@axoncable

---

© AXON' | Released June 2023/C  | All rights reserved    Design YO! - Photos : Nickelkrome, Axon’ Cable  -   A-PTFE